Divyanshu Bhaik

AI-Developer

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github.com/dv-123?tab=repositories

I am an enthusiastic and driven B. Tech. Student, currently pursuing my degree from National Institute of Technology, Hamirpur. I am currently looking for a Internship in Machine Learning or Electronics and Communication to utilize and enhance my Knowledge of AI and Electronics and Communication Engineering.

EDUCATION

B.Tech. + M.Tech. (Integrated)

National Institute Of Technology, Hamirpur

07/2017 – Present *CGPA - 8.47*

Branch
- Electronics and Communication Engineering

PERSONAL PROJECTS

Smart Road Assistant (10/2019 – Present)

- It is a smart automated electronic device which is designed to predict the possibility of your car crashing into any other vehicle or any other object on the read. This technology is purely automatic and is based on various Deep Learning and Computer Vision Algorithms such as YOLO Algorithm, IOU and Kalaman Filter etc.
- The software is completely ready and can predict the possible crash 3-4 seconds before the crash.
- The future developments will include the optimization of algorithm to also work under low light conditions (like when the light source is only head light or street light), prototyping of the algorithm and making a electronic gadget out of it, improving the time of prediction and deploying and testing the project with automatic car or prototype car with the access to the breaking system of the car.

Text to Braille (01/2019 – 03/2019)

- This project includes a Deep Learning Character Recognition model with a pipeline implemented at back-end, i used an API from GitHub named Tesseract which implement all the pipeline with model, also the main two functions - order_points and four_point_transform. This does image pre-processing to make the captured real-time Image/Video look better for the pipeline which gives 2-D image output.
- The detected characters are then saved as a word document and by using serial characters are also transferred to the arduino.
- The arduino is programmed in such a way that it convert the input from the script into the related braille format and servo motors are used to make a braille patterns.

CERTIFICATES AND PROJECTS

Certificates are included in my Linked In About

All Projects are committed in my GitHub repository

EXPERIENCE

Innovation Head

Research and Innovation Council

09/2019 – Present *NIT Hamirpur*

TECHNICAL SKILLS

PROGRAMMING
C/C++, Python

Python Libraries
Tensorflow, Keras, Scikit Learn, Pandas, Numpy, Matplotlib, OpenCV.

Mathematics
Matrix Mathematics, Linear Algebra,Calculus and Statistics, Applied Mathematics, Advanced Mathematics.

Machine Learning
Linear Regression, Support Vector Machines, K-Nearest Neighbors, Single Perceptron Model etc.

Deep Learning
Multilayered Perceptron Model, Convolution Neural Networks, Recurrent Neural Networks, Generative Adversarial Networks, Neural Networks & Fuzzy Logic.

Related Skills
Supervised and Unsupervised Machine Learning, Control Systems, Computer Vision, Digital Signal Processing, Reinforcement Learning (OpenAI Gym Python)

Software
MATLAB, Anaconda, PyCharm, Atom etc.

OS
Linux - Ubuntu, Kali, Raspbian etc.

Electronics
Microprocessor (Intel 8085,8086), Micro controller(Intel 8051), Raspberry-Pi(IOT and Automation), Arduino-Uno, Intel Edison, Node-MCU, FPGA (Verilog).

SOFT SKILLS

Event Management | Organisation (Logistics) | Communication | Critical Thinking | Innovative

INTERESTS

Sports (Playing) - Volleyball & Football | Sketching | Dancing | Gym (Calisthenics)